

February 25, 2000

Certified Mail #Z 029 877 062

Donn T. Davies  
President  
Davies Imperial Coatings, Inc.  
1275 State Street  
Hammond, Indiana 46320

Re: AAF089-11842  
Second Administrative Amendment to  
FESOP 089-5435-00295

Dear Mr. Davies:

Davies Imperial Coatings, Inc. was issued a Federally Enforceable State Operating Permit (FESOP 089-5435-00295) on December 9, 1996 for the Paint Manufacturing and Paper Coatings Manufacturing Operations. A letter requesting changes to the Paper Coatings Manufacturing Operation was received on November 4, 1999. Pursuant to the provisions of 326 IAC 2-8-10, the permit is hereby administratively amended as follows:

**Proposed Changes:**

The following changes were agreed to and made as the Second Administrative Amendment for this source (~~strikeout~~ added to show what was deleted and **bold** added to show what was added):

1. On Page 4 of 38, Section A.2 Emission Units and Pollution Control Summary has been changed as follows:

The stationary source consists of the following emission units and pollution control devices:

**EU-01: Paint Manufacturing Operation**

This operation includes the manufacturing of water-based & solvent-based industrial paints and water-based & solvent-based traffic paints. This operation includes the following specific production equipment:

Equipment	Equipment ID No.
<i>Traffic Paint Production</i>	
(4) 600 gallon tanks	6, 7, 8, & 9
(2) 1700 gallon tanks	10 & 11
(1) 2,000 gallon tank	12
(1) 1,400 gallon tank	13
(1) 2,700 gallon tank	14

(1) 300 gallon mixer	15
<del>Bag Dump Operation</del>	
<i>Industrial Paint Production</i>	
(1) 140 gallon mixer	G5
(1) 210 gallon mixer	G2
(1) 330 gallon mixer	G3
<del>(1) (2) 540 gallon mixer tanks</del> <b>with one common mixing arm</b>	<del>G7</del> <b>G7a &amp; G7b</b>
<del>Bag Dump Operation</del>	

**The Bag Dump Operations are being removed because there were never any bag-dump stations associated with these processes.**

2. On Page 5 of 38, Section A.2 Emission Units and Pollution Control Summary has been changed as follows:

**EU-03: Paper Coating Manufacturing Operation**

This operation consists of the following process units:

<b>Equipment</b>	<b>Equipment ID No.</b>
<del>(4) (5)</del> 660 gallon mixers	M1, M2, M3, & M4, & <b>M5</b>
(5) bag dump stations w/ filters	<b>D1, D2, D3, D4, &amp; D5</b>
<del>(5) (3)</del> 1500 gallon mix <b>finished product holding</b> tanks	<del>25, 26, 27, 28, &amp; 29</del> <b>1E, 3E, &amp; 1W</b>
<del>(4) 2700 gallon mix tanks</del>	<del>21, 22, 23, &amp; 24</del>
<del>(4) 2700 gallon mix tanks</del>	<del>30, 31, 32, &amp; 33</del>
<b>(7) 2700 gallon finished product storage tanks</b>	<b>2E, 4E, 5E, 6E, 7E, 2W, &amp; 3W</b>
<b>(1) 2500 gallon blend tank (Rigid Disk Manufacturing Operation)</b>	<b>4W RD</b>

Per information received from the Company, only seven (7) 2700-gallon finished storage tanks will be used. The tanks are the same as in the original FESOP; only the Equipment ID Numbers were changed to be consistent with Company designation.

A new mixer (Mixer #5) was installed. It will utilize one of the existing bag-dump stations. The potential to emit (PTE) for the Paper Coating Manufacturing Operation was evaluated using the maximum bag-dumping rate. There is no change in the maximum bag-dumping rate, therefore, there is no increase in PTE. With the addition of Mixer #5, the company expects a potential increase in throughput of 25%.

A new finishing process has been added to the Paper Coating Manufacturing Operation. It is called Rigid Disk Manufacturing Operation. It involves blending of finished product

from the Paper Coating Manufacturing Operation with water and additives in a new 2,500-gallon blend tank. With the addition of the 2,500-gallon mix tank, the company anticipates a potential increase in throughput of 5% in the Paper Coating Manufacturing Operation.

3. On Page 23 of 38, Section D.1 Facility Operation Conditions has been changed as follows:

## SECTION D.1 FACILITY OPERATION CONDITIONS

**Paint & Paper Coating Manufacturing Operations.** The Paint Manufacturing Operation ~~Paint manufacturing~~ involves the production of water-based and solvent-based Industrial and traffic paints. The maximum design rate of pigment usage is 0.75 tons per hour and the maximum production rate is 1 ton per hour of each solvent-based paints and water-based paints. The **Water-based Traffic Paint Manufacturing Operation** ~~Latex water-based traffic paint~~ utilizes a maximum of 1 ton per hour of pigments and produces a maximum of 3.5 tons per hour. The maximum design rate of raw material bag dumping in the **Paper Coating Manufacturing Operation** ~~paper coating manufacturing operation~~ is 2.5 tons per hour. **The new Rigid Disk Manufacturing Operation involves blending water and additives with finished product from the Paper Coating Manufacturing Operation in a 2500-gallon blend tank.** Bag dumping operations for the Paper Coating Manufacturing Operation and the **Water-based Traffic Paint Manufacturing Operation** ~~paper coating manufacturing and the Latex traffic paint manufacturing~~ are controlled by bag filters.

4. On Page 24 of 38, Section D.1.7 Compliance Monitoring Requirements has been changed as follows:

### Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

#### D.1.7 Pressure Drop Readings

That the following baghouses shall be operated at all times when the dump stations are in operation. The Permittee shall take daily readings of the total static pressure drop across each baghouse when the associated bag dump station is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the following ranges:

Unit ID	P range (inches of water)
<i>Paper Coating Manufacturing Operation</i>	
<b>Baghouse 1</b>	<b>No pressure drop gauge present. Compliance monitoring addressed in Section D.1.8.</b>
Baghouse 2	4 - 6
Baghouse 3	4 - 6
Baghouse 4	2 - 4
Baghouse 5	2 - 4
<i>Water-Based Traffic Paint Manufacturing Operation</i>	
Baghouse 1	2 - 4

5. On Page 25 of 38, Section D.1.10 Broken Bag or Failure Detection has been changed as follows:

D.1.10 Broken Bag or Failure Detection

That in the event that bag failure has been observed:

- (a) The associated bag dump station shall be shut down as soon as practicable.
- ~~(a)~~(b) The affected compartments will be shut down immediately until the units have been replaced.
- ~~(b)~~(c) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

Appendix A: Source Emissions Calculations has also been modified.

These modifications do not result in an increase in the potential to emit of any regulated pollutant greater than the thresholds in 326 IAC 2-1.1-3(d)(1). These changes revise descriptive information where the revisions will not trigger any new applicable requirements or violate any permit terms.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact this Department at (219) 853-6306.

Sincerely,

Lito V. Biscocho, Engineer  
Hammond Department of Environmental Management  
Air Pollution Control Division

cc: Cheryl Newton, Chief, Program Evaluation Section, U.S.E.P.A., Region V  
Mindy Hahn, Permits Administration, IDEM-OAM

LB

ENCLOSURES

# FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
- AIR POLLUTION CONTROL DIVISION -

5925 Calumet Avenue  
Hammond, Indiana 46320  
Phone: (219) 853-6306

**Davies Imperial Coatings, Inc.**  
**1275 State Street**  
**Hammond, Indiana 46320**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: <b>F089-5435-00295</b>	
Original Issued By: Ronald L. Novak, Director Hammond Department of Environmental Management	Issuance Date: <u>December 9, 1996</u>

First Significant Permit Modification 089-8725, issued on 8/4/97.  
First Administrative Permit Amendment 089-9215, issued on 1/16/98.

Administrative Permit Amendment: <b>089-11842</b>	Pages Affected: pages 4, 5, 23, 24, & 25
Issued by: _____ Ronald L. Novak, Director Hammond Department of Environmental Management	Issuance Date: <u>February 25, 2000</u>

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## SECTION A

## SOURCE SUMMARY

### A.1 General Information

The Permittee owns and operates a paint and paper coating manufacturing plant.

Responsible Official: Donn T. Davies, President  
Source Address: 1275 State Street, Hammond, Indiana 46320  
Mailing Address: P.O. Box 790, Hammond, Indiana 46325  
SIC Code: 2851 (Paints & Allied Products) and 2672 (Paper Coated & Laminated)  
County Location: Lake  
County Status: Nonattainment for TSP, PM10, SO2, VOC, and NO2.  
Source Status: Synthetic Minor Source, FESOP Program

### A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

#### **EU-01: Paint Manufacturing Operation**

This operation includes the manufacturing of water-based & solvent-based industrial paints and water-based & solvent-based traffic paints. This operation includes the following specific production equipment:

Equipment	Equipment ID No.
<i>Traffic Paint Production</i>	
(4) 600 gallon tanks	6, 7, 8, & 9
(2) 1700 gallon tanks	10 & 11
(1) 2,000 gallon tank	12
(1) 1,400 gallon tank	13
(1) 2,700 gallon tank	14
(1) 300 gallon mixer	15
<i>Industrial Paint Production</i>	
(1) 210 gallon mixer	G2
(1) 330 gallon mixer	G3
(1) 140 gallon mixer	G5
(2) 540 gallon tanks with one common mixing arm	G7a & G7b

The maximum design rate of pigments added is 0.75 Tons per hour. The maximum production of solvent-based and water-based paints is 1 Ton per hour of each type of paint.

There are no air pollution control equipment associated with this operation.

#### **EU-02: Water-Based Traffic Paint Manufacturing Operation**



This operation consists of the following process units:

Equipment	Equipment ID No.
(3) 2,000 gallon mixers	3, 4, & 16
(2) 7,000 gallon raw material tanks	1 & 2
(1) 2,500 gallon tank	5
(1) bulk handling system	
(1) bag dump station w/ filter	

The maximum design rate of pigments handled is 1 ton per hour. The maximum design rate of water-based traffic paint produced is 3.5 tons per hour.

Particulate emissions from the bag dump operation are controlled by a bag filter unit.

#### **EU-03: Paper Coating Manufacturing Operation**

This operation consists of the following process units:

Equipment	Equipment ID No.
(5) 660 gallon mixers	M1, M2, M3, M4, & M5
(5) bag dump stations w/ filters	D1, D2, D3, D4, & D5
(3) 1500 gallon finished product holding tanks	1E, 3E, & 1W
(7) 2700 gallon finished product storage tanks	2E, 4E, 5E, 6E, 7E, 2W, & 3W
(1) 2500 gallon blend tank (Rigid Disk Manufacturing Operation)	4W RD

The maximum design rate of raw material bag dumping is 2.5 tons per hour. Emissions from each bag dump station are controlled by a bag filter unit.

#### **A.3 Insignificant Activities**

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- 1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- 2) Paved and unpaved roads and parking lots with public access.

3) Grinding and machining operations with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Hammond Department of Environmental Management and the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

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## SECTION B GENERAL CONDITIONS

- B.1 General Requirements [IC 13-15] [IC 13-17] (Prior to July 1, 1996: IC 13-7 and IC 13-1-1)  
The permittee shall comply with the provisions of IC 13-15 (Permits Generally), IC 13-17 (Air Pollution Control) and the rules promulgated thereunder.
- B.2 Definitions [326 IAC 2-8-1]  
Terms in this permit shall have the meaning assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11 (prior to July 1, 1996, IC 13-7-2, IC 13-1-1-2), 326 IAC 1-2, and 326 IAC 2-7 shall prevail.
- B.3 Permit Term [326 IAC 2-8-4(2)]  
This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-5-5-3 (prior to July 1, 1996, IC 13-7-10-2.5), of the permit.
- B.4 Enforceability [326 IAC 2-8-6]  
(a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by HDEM and IDEM.  
(b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.
- B.5 Termination of Right to Operate [326 IAC 2-8-9]  
The expiration of this permit terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-7.
- B.6 Severability [326 IAC 2-8-4(4)]  
(a) The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.  
(b) Indiana rules from 326 IAC quoted in conditions in this permit are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard.
- B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]  
This permit does not convey any property rights of any sort or any exclusive privilege.
- B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]  
(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Hammond Department of Environmental Management  
5925 Calumet Avenue  
Hammond, Indiana 46320  
and to:

Indiana Department of Environmental Management,  
Permits Branch, Office of Air Management,  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall also provide additional information as requested by HDEM or IDEM - OAM, to determine the compliance status of the source in accordance with 326 IAC 2-8-5(a).
- (c) The Permittee shall furnish to HDEM and IDEM-OAM, within a reasonable time, any information that the HDEM or IDEM-OAM may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
- (d) Upon written request, the Permittee shall also furnish to HDEM and IDEM - OAM, copies of records required to be kept by this permit. For information claimed to be confidential, the Permittee shall furnish such records directly to the U.S. EPA, IDEM - OAM, and HDEM along with a claim of confidentiality.

Such confidentiality claims shall meet the requirements of 40 CFR Part 2, Subpart B (when submitting to U.S. EPA) and 326 IAC 17 (when submitting to IDEM - OAM and HDEM).

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

IDEM - OAM and HDEM may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) enforcement action;
  - (2) permit termination, revocation and reissuance or modification; and
  - (3) denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**B.11 Certification [326 IAC 2-8-4(3)(C)(i)]**

Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

A responsible official is defined at 326 IAC 2-7-1(33).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually certify that the source has complied with the terms and conditions contained in this permit, including emission limitations, standards, and work practices. The certification shall be submitted by April 15 to:

Hammond Department of Environmental Management  
5925 Calumet Avenue  
Hammond, Indiana 46320

and to:

Indiana Department of Environmental Management,  
Compliance Data Section, Office of Air Management,  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and to:

U.S. Environmental Protection Agency (EPA), Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (b) This annual compliance certification report required by this permit shall be timely if:

- (1) Delivered by U.S. mail and postmarked on or before the date it is due; or
- (2) Delivered by any other method if it is received and stamped by HDEM and IDEM - OAM, on or before the date it is due.

- (c) The annual compliance certification report shall include the following:

- (1) The identification of each term and condition of this permit that is the basis of the certification;
- (2) The compliance status;
- (3) Whether compliance was continuous or intermittent;
- (4) The methods used for determining the compliance status of the source, currently and over the reporting period; and
- (5) Such other facts as HDEM and IDEM - OAM, may require to determine the compliance status of the source.

B.13 Preventive Maintenance Plan [326 IAC 2-8-4(9)] [326 IAC 1-6-3]

- (a) The Permittee shall prepare, maintain and implement Operation and Preventive Maintenance Plans as necessary including the following information on each:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

- (3) Corrective actions that will be implemented in the event an inspection indicates an out of specification situation;
  - (4) A time schedule for taking such corrective actions including a schedule for devising additional corrective actions for situations that may not have been predicted; and
  - (5) Identification and quantification of the replacement parts which will be maintained in inventory for quick replacement.
- (b) Preventive Maintenance Plans shall be submitted to HDEM and IDEM - OAM, upon request and shall be subject to review and approval by HDEM and IDEM - OAM.

B.14 Emergency Provision [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided as follows:
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements of this permit;
  - (4) The Permittee notified HDEM and IDEM - OAM, within four (4) daytime business hours after the beginning of the emergency occurrence by telephone or facsimile;

(HDEM)

Telephone No.: (219) 853-6306

Facsimile No.: (219) 853-6343

(IDEM - OAM)

Telephone No.: 1-800-451-6027 (ask for Office of Air Management) or,

Telephone No.: 317-233-0178

Facsimile No.: 317-233-5967

- (5) The Permittee submitted written notice or by facsimile of the emergency to:

Hammond Department of Environmental Management  
5925 Calumet Avenue  
Hammond, Indiana 46320

and to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency. The notice shall fulfill the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(C)(33).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes any emergency or upset provision contained in 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) HDEM and IDEM - OAM, may require that the preventive maintenance plan required under 326 IAC 2- 8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify HDEM and IDEM - OAM, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) the Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of

capital investment, or loss of product or raw material of substantial economic value.

- (C) Any operations shall continue no longer than the minimum time required to prevent the situations identified in clause (B) above.

- B.15 Deviations from Permit Requirements and/or Conditions [326 IAC 2-8-4(3)(C)(ii)];  
Deviations from requirements, (for emergencies see Condition B.14 - Emergency Provision)  
the probable cause of such deviations, and any corrective actions or preventive measures  
taken shall be reported to:

Hammond Department of Environmental Management  
5925 Calumet Avenue  
Hammond, Indiana 46320

and to:

Indiana Department of Environmental Management,  
Compliance Branch, Office of Air Management,  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

Written notification shall be submitted on the attached Deviation Occurrence Reporting Forms.

- B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination

[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8(a)]  
[326 IAC 2-8-8(b)] [326 IAC 2-8-8(c)]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)]
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 (prior to July 1, 1996, in IC 13-7-10-5) or if the commissioner determines any of the following:
- (1) That it contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by HDEM and IDEM - OAM, to reopen and revise this permit shall follow the same procedures that apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practical. [326 IAC 2-8-8(b)]



- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by HDEM or IDEM - OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that HDEM and IDEM - OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

- (a) The application for renewal shall be submitted using the application form or forms prescribed by HDEM and IDEM - OAM, and shall include, at minimum, the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(20).

Request for renewal shall be submitted to:

Hammond Department of Environmental Management  
5925 Calumet Avenue  
Hammond, Indiana 46320

and to:

Indiana Department of Environmental Management,  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

- (b) **Timely Submittal of Permit Renewal [326 IAC 2-5-3]**
  - (1) The Permittee has a duty to submit a timely and complete permit renewal application. A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) Delivered by U. S. mail and postmarked on or before the date it is due; or
    - (C) Delivered by any other method if it is received and stamped by HDEM and IDEM - OAM, on or before the date it is due.
  - (2) If HDEM and IDEM - OAM fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) **Right to Operate After Application of Renewal [326 IAC 2-8-9]**

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until HDEM or IDEM - OAM takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by HDEM or IDEM - OAM, any additional information identified as needed to process the application.

**B.18 Administrative Permit Amendment [326 IAC 2-8-10]**

- (a) An administrative permit amendment is a FESOP revision that makes changes of the type specified under 326 IAC 2-8-10(a).
- (b) An administrative permit amendment may be made by HDEM or IDEM - OAM, consistent with the procedures specified under 326 IAC 2-8-10(b).
- (c) The Permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Minor Permit Modification [326 IAC 2-8-11(a)] [326 IAC 2-8-11(b)(1) and (2)]

- (a) A permit modification is any revision to this permit that cannot be accomplished as an administrative permit amendment under 326 IAC 2-8-10.
- (b) Minor permit modification procedures shall follow the procedures specified under 326 IAC 2-8-11(b)(1)(A) through (F).
- (c) An application requesting the use of minor modification procedures shall meet the requirements of 326 IAC 2-8-3(c) and shall include the information required in 326 IAC 2-8-11(b)(3)(A) through (D).
- (d) The Permittee may make the change proposed in its minor permit modification application immediately after it files such application unless the change is subject to the construction permit requirements of 326 IAC 2-1, 326 IAC 2-2, and 326 IAC 2-3. After the Permittee makes the change allowed under minor permit modification procedures, and until HDEM or IDEM - OAM takes any of the actions specified in 326 IAC 2-8-11(b)(5), the Permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period, the Permittee need not comply with the existing permit terms and conditions it seeks to modify. If the Permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it. [326 IAC 2-8-11(b)(6)]

B.20 Significant Permit Modification [326 IAC 2-8-11(d)]

- (a) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments.
- (b) Any significant change in existing monitoring permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions of this permit shall be considered significant.
- (c) Nothing in 326 IAC 2-8-11(d) shall be construed to preclude the Permittee from making changes consistent with 326 IAC 2-8 that would render existing permit compliance terms and conditions irrelevant.
- (d) Significant modifications of this permit shall meet all requirements of 326 IAC 2-8, including those for application, public participation, and review by the U.S. EPA, as they apply to permit issuance and renewal.

B.21 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-8-11(b)(1)(D)(i)]

Notwithstanding 326 IAC 2-8-11(b)(1)(D)(i) and 326 IAC 2-8-11(c)(1), minor permit modification procedures may be used for modifications of this permit involving the use of economic incentives, marketable FESOP's, emissions trading, and other similar approaches to the extent that such minor permit modification procedures are explicitly provided for in the applicable implementation plan (SIP) or in applicable requirements promulgated by the U.S. EPA.

B.22 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions are met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions);
- (3) The Permittee notifies the:

Hammond Department of Environmental Management  
5925 Calumet Avenue  
Hammond, Indiana 46320

and

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division  
Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604 - 3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit. The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(C)(33).

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(C)(33), and;

- (4) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon

reasonable request, for public review. Such records shall consist of all information required to be submitted to HDEM and IDEM - OAM, in the notices specified in 326 IAC 2-8-15(b)(1), (c)(1), and (d).

- (b) For each such change, the required written notification shall include the following:
  - (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.
- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints in section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7) and subject to the constraints in section (a) of this condition and those in 326 IAC 2-8-15(d).

**B.23 Construction Permit Requirement [326 IAC 2-1]**

Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Hammond Department of Environmental Management and the Office of Air Management (OAM).

**B.24 Inspection and Entry [326 IAC 2-8-5(a)(2)]**

Upon presentation of HDEM or IDEM identification cards, credentials, and other documents as may be required by law, the Permittee shall allow HDEM, IDEM-OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of demonstrating compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of demonstrating compliance with this permit or applicable requirements.

[326 IAC 2-8-5(a)(4)]

B.25 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM - OAM, consistent with the fee schedule established in 326 IAC 2-8-16.
- (b) Failure to pay may result in administrative enforcement action, revocation of this permit, referral to the Office of Attorney General for collection, or other appropriate measures.
- (c) The Permittee shall pay the annual fee within thirty (30) calendar days of receipt of a billing by IDEM - OAM or in a time period that is consistent with the payment schedule issued by IDEM - OAM.
- (d) If the Permittee does not receive a bill from IDEM - OAM, thirty (30) calendar days before due date, the Permittee shall call the following telephone numbers: 1-800-451-6027 or 317-233-0179 (ask for OAM, Data Support Section) to determine the appropriate permit fee. The applicable fee is due April 1 of each year.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
---------------

C.1 Overall Source Limit (326 IAC 2-8)

Pursuant to 326 IAC 2-8, emissions of VOC from the entire source shall not exceed 24 tons per 365-day period. Emissions of any other regulated pollutant from the entire source shall not exceed 99 tons per 365-day period. Emissions of hazardous air pollutants (HAPs) from the entire source shall not exceed 9 tons per 365-day period for any individual HAP or 24 tons per 365-day period of any combination of HAPs. Emissions shall include those from all emission points at the source including those that are insignificant as defined in 326 IAC 2-7-1(20). The source shall be allowed to add insignificant activities not already listed in this permit, as long as the total emissions from the source do not exceed the above specified limits. In the event that any condition or combination of conditions in Section D of this permit differs from the above, the most restrictive limit will prevail.

C.2 Opacity

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall not exceed an average of 20 percent opacity in 24 consecutive readings.

C.3 Open Burning

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

C.4 Fugitive Dust Emissions

The Permittee shall be in violation of 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), if the opacity of fugitive particulate emissions exceeds ten percent (10 percent). Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.

C.5 Operation of Equipment [326 IAC 2-8-5(a)(4)]

- (a) All equipment that potentially might emit pollutants into the ambient air shall be properly operated and maintained.
- (b) Unless otherwise stated in this permit, all air pollution control equipment listed in this permit shall be operated at all times when the emission unit(s) vented to the control equipment is in operation.
- (c) The permittee shall perform all necessary maintenance and make all necessary attempts to keep all air pollution control equipment in proper operating condition at all times.

### **Compliance Monitoring** [326 IAC 2-8-5(a)(1)]

C.6 Compliance Monitoring [326 IAC 2-8-4(3)]

Compliance with applicable requirements shall be documented in accordance with the provisions of 326 IAC 2-8-4(3). The Permittee shall be responsible for installing any necessary equipment and initiating any additional monitoring no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee shall notify:

Hammond Department of Environmental Management  
5925 Calumet Avenue  
Hammond, Indiana 46320

and

Indiana Department of Environmental Management,  
Compliance Data Section, Office of Air Management,  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, with full justification of the reasons for inability to meet this date and a schedule which it expects to meet. If a denial of the request is not received before the monitoring is fully implemented, the schedule shall be deemed approved.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(C)(33).

C.7 Maintenance of Monitoring Equipment [326 IAC 1-6]

The Permittee shall perform all necessary maintenance and make all necessary attempts to keep all required monitoring equipment in proper operating condition at all times. In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. Preventive maintenance plans of the monitors shall be implemented. In addition prompt correction, as indicated, shall be initiated within the time frames specified, whenever the parameters monitored fall outside of the indicated values.

C.8 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the requirements of this permit shall be performed, whenever applicable according to the provisions of 326 IAC 3, or 40 CFR Part 60, Appendix A, as appropriate, unless some other method is specified in this permit.

C.9 Pressure Gauge Specifications

Whenever a condition in this permit requires the taking of pressure drop across any part of the unit or its control device the gauge employed shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within 2% of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

**Corrective Actions** [326 IAC 2-8-4(1)] [326 IAC 2-8-5(1)]

C.10 Failure to Take Corrective Action

For each unit for which parametric monitoring is required, appropriate corrective actions as described in the Preventive Maintenance Plan shall be taken when indicated by monitoring information. Failure to take corrective action following an excursion of a surrogate monitoring parameter within the prescribed time will

constitute a violation of the permit unless taking the corrective action set forth in the Plan would be unreasonable.

After investigating the reason for the excursion, the Permittee may be excused from taking further corrective action for any of the following reasons:

- (a) Providing that prompt action was taken to correct the monitoring equipment, that the monitoring equipment malfunctioned, giving a false reading; or
- (b) The Permittee has determined that the parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied; or
- (c) An automatic measurement was taken when the process was not operating; or
- (d) The Permittee determines that the process has already returned to operating within "normal" parameters and no corrective action is required.

Records shall be kept of all instances in which the action values were not met and of all corrective actions taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

#### **Record Keeping and Reporting [326 IAC 2-8-4(3)]**

##### **C.11 Emission Reporting [326 IAC 2-6]**

- (a) The Permittee shall submit a certified, annual emission statement that meets the requirements of 326 IAC 2-6 (Emission Reporting). This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year). The annual statement must be submitted to:

Hammond Department of Environmental Management  
5925 Calumet Avenue  
Hammond, Indiana 46320

and

Indiana Department of Environmental Management,  
Data Support Section, Office of Air Management,  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) This annual emission statement required by this permit shall be timely if:
  - (1) Delivered by U.S. mail and postmarked on or before the date it is due; or
  - (2) Delivered by any other method if it is received and stamped by HDEM and IDEM - OAM, on or before the date it is due.



C.12 Monitoring Data Availability

All observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions. Records shall be kept of the times that the equipment is not operating. If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality. If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded. At its discretion, HDEM or IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed 5% of the operating time in any quarter. Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason.

C.13 General Record Keeping Requirements

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location and available within one-hour upon verbal request of an HDEM or IDEM - OAM representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two years providing they are made available within thirty (30) days after written request.
- (b) Records of required monitoring information shall include:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytical techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;

- (4) All preventive maintenance and corrective actions that were implemented. Such records shall briefly describe what was done and indicate who did it;
- (5) Relevant work purchase orders;
- (6) Quality assurance and quality control procedures;
- (7) Operator's standard operating procedures;
- (8) Manufacturer's specifications or their equivalent; and
- (9) Equipment "troubleshooting" guidance.

C.14 General Reporting Requirements

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Hammond Department of Environmental Management  
5925 Calumet Avenue  
Hammond, Indiana 46320

and to:

Indiana Department of Environmental Management,  
Compliance Data Section, Office of Air Management,  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be timely if:
- (1) Delivered by U.S. mail and postmarked on or before the date it is due; or
  - (2) Delivered by any other method if it is received and stamped by HDEM and IDEM - OAM, on or before the date it is due.
- (c) All instances of deviations from any requirements of this permit must be clearly identified in such reports.
- (d) Any corrective actions taken as a result of an exceedance of a limit, an excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.
- (e) The first report shall commence the date of issuance of this permit.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

**Paint & Paper Coating Manufacturing Operations.** The Paint Manufacturing Operation involves the production of water-based and solvent-based Industrial and traffic paints. The maximum design rate of pigment usage is 0.75 tons per hour and the maximum production rate is 1 ton per hour of each solvent-based paints and water-based paints. The Water-based Traffic Paint Manufacturing Operation utilizes a maximum of 1 ton per hour of pigments and produces a maximum of 3.5 tons per hour. The maximum design rate of raw material bag dumping in the Paper Coating Manufacturing Operation is 2.5 tons per hour. The new Rigid Disk Manufacturing Operation involves blending water and additives with finished product from the Paper Coating Manufacturing Operation in a 2500-gallon blend tank. Bag dumping operations for the Paper Coating Manufacturing Operation and the Water-based Traffic Paint Manufacturing Operation are controlled by bag filters.

### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Volatile Organic Compound (VOC)

State/Federal

That volatile organic compound emissions shall be limited to twenty-four (24) tons per year. Therefore, the requirements of Prevention of Significant Deterioration (326 IAC 2-2 and 40 CFR 52.21), 326 IAC 8-1-6, and the Part 70 Operating Permit Program (326 IAC 2-7) do not apply.

#### D.1.2 Hazardous Air Pollutants (HAPs)

State/Federal

That the hazardous air pollutant emissions shall be limited as follows:

- (a) A single hazardous air pollutant (HAP) emission shall not exceed 9 tons per year.
- (b) Any combination of HAPs emissions shall not exceed 24 tons per year.

Therefore, the requirements of Prevention of Significant Deterioration (326 IAC 2-2 and 40 CFR 52.21) and the Part 70 Operating Permit Program (326 IAC 2-7) do not apply.

#### D.1.3 Particulate Matter (PM)

State That pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations), the PM emissions shall be limited to 10.8 lbs/hr; 47.304 tons per year.

#### D.1.4 Particulate Matter less than 10 microns in diameter (PM<sub>10</sub>)

State That pursuant to the Hammond Air Quality Control Ordinance No. 3522 (as amended), PM<sub>10</sub> emissions limit shall be set equal to the PM emission limit.

#### D.1.5 Preventive Maintenance [326 IAC 2-8-4(9)]

State/Federal

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for each baghouse.

### Testing Requirements [326 IAC 2-8-4(3)]

D.1.6 There are no testing requirements necessary for this operation.

## **Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]**

### **D.1.7 Pressure Drop Readings**

That the following baghouses shall be operated at all times when the dump stations are in operation. The Permittee shall take daily readings of the total static pressure drop across each baghouse when the associated bag dump station is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the following ranges:

Unit ID	P range (inches of water)
<i>Paper Coating Manufacturing Operation</i>	
Baghouse 1	No pressure drop gauge present. Compliance monitoring addressed in Section D.1.8.
Baghouse 2	4 - 6
Baghouse 3	4 - 6
Baghouse 4	2 - 4
Baghouse 5	2 - 4
<i>Water-Based Traffic Paint Manufacturing Operation</i>	
Baghouse 1	2 - 4

The Preventive Maintenance Plan for each of the baghouses shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with condition C.9 - Pressure Gauge Specifications, be subject to approval by HDEM and IDEM - OAM, and shall be calibrated at least once every six (6) months.

### **D.1.8 Paper Coating Manufacturing Operation - Baghouse 1**

That Baghouse 1 shall be operated at all times when its associated dump station is in operation. The Permittee shall be required to change the bags on this unit, at minimum, every two (2) months as recommended by the manufacturer. Dates of bag changes shall be maintained and made available for inspection upon request by HDEM or IDEM.

### **D.1.9 Daily Visual Stack Emission Notations**

Daily visible emission notations of the following baghouses shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for these units shall contain

troubleshooting contingency and corrective actions for when an abnormal emission is observed.

**D.1.10 Broken Bag or Failure Detection**

That in the event that bag failure has been observed:

- (a) The associated bag dump station shall be shut down as soon as practicable.
- (b) The affected compartments will be shut down immediately until the units have been replaced.
- (c) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**D.1.11 Operational Parameters**

That the Permittee shall maintain a daily record at the stationary source of the following values:

- (a) Inlet and outlet differential static pressure;
- (b) Cleaning cycle: frequency and differential pressure;
- (c) Visual stack emissions Notations.

**D.1.12 Volatile Organic Compound (VOC)**

That the Permittee shall maintain a monthly record of the following:

- a) Total quantity of solvent-based paint produced.
- b) Total quantity of water-based paint produced.
- c) Total quantity of Latex Traffic Paint produced.

Compliance with the VOC limit of 24 tons per year shall be determined on a twelve month rolling total.

**D.1.13 Hazardous Air Pollutants (HAPs)**

That the Permittee shall maintain a monthly record of the following:

- a) Total quantity of chrome yellow pigment used.
- b) Throughputs for storage tanks 10, 11, 12, 13, 14, and the underground storage tank's eight compartments.

Compliance with the HAP limits of 9 tons per year for any single HAP and 24 tons per year for the combination of HAPs shall be determined on a twelve month rolling total.

**D.1.14 Particulate Matter (PM) and Particulate Matter less than 10 microns in diameter (PM10)**

That the Permittee shall maintain a monthly record of the following:

- a) Total quantity of pigments used in the Paint Manufacturing Operation.
- b) Total pigments used in the Water-Based Traffic Paint Manufacturing Operation.

c) Total quantity of raw material bag dumped in the Paper Coating Manufacturing Operation.

Compliance with the PM and PM10 limits shall be determined on a twelve month rolling total.

D.1.15 Monthly Reporting

That a monthly summary to document compliance with operation conditions number D.1.12 through D.1.14 shall be submitted on the forms enclosed within fifteen (15) days after the end of the month being reported to the addresses listed in Section C - General Reporting Requirements.

State Form 47738 (5-96)

**HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
- AIR POLLUTION CONTROL DIVISION -  
and  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: **Davies Imperial Coatings, Inc.**  
Source Address: 1275 State Street, Hammond, Indiana 46320  
FESOP No.: **F089-5435-00295**

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Please check what document is being certified:

- ☐ Deviation Occurrence Reporting Form (For Control Equipment Monitoring)
- ☐ Deviation Occurrence Reporting Form (For Material Usage, Quality, Etc.)
- ☐ Relocation Notification
- ☐ Test Result (specify)
- ☐ Report (specify)
- ☐ Notification (specify)
- ☐ Other (specify)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

1/18/96

State Form 47739 (5-96)

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
- AIR POLLUTION CONTROL DIVISION -  
AND  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)**  
**DEVIATION OCCURRENCE REPORTING FORM**  
(For Control Equipment Monitoring Only)

Source Name: **Davies Imperial Coatings, Inc.**  
Source Address: 1275 State Street, Hammond, Indiana 46320  
FESOP No.: **F089-5435-00295**

A separate copy of this report must be submitted for **each** monitoring device on all control equipment listed in this permit.  
Attach a signed certification to complete this report.

Stack/Vent ID:

Control Equipment:

(ex: thermal oxidizer, scrubber, baghouses)

Type of Parameter Monitored:

(ex: temperature, pressure drop, efficiency)

☐ Continuously ☐ Periodically, at a frequency of:

Parameter Operating Restrictions/Range:

(ex: 1,400°F, 2-4 psi pressure drop)

Report Covers From:

To:

(date: month/day/yr)

☐ No Deviations from the Parameter Restriction/Range Occurred During the Monitoring Period. Complete  
Records Maintained at the Facility Verify Compliance with this Condition.

☐ Summary of Deviations from the Parameter Restriction/Range During the Monitoring Period are Identified  
Below. Complete Records Maintained at the Facility.

	For Parameter Recorded Continuously	For Parameter Recorded Periodically
Total Unit Operating Time		
Total Time of Deviations		
(Identify All Deviations)		
Percent of Time Indicating Deviations		
(12/[1]x100)		

Date of Deviation	Start/Stop Time of Deviation (Continuous Monitoring Only)	Actual Value Recorded	Reason for Deviation & Corrective Action Taken

1/18/96



State Form 47741 (5-96)

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
- AIR POLLUTION CONTROL DIVISION -  
AND  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
DEVIATION OCCURRENCE REPORTING FORM**

Source Name: **Davies Imperial Coatings, Inc.**  
Source Address: 1275 State Street, Hammond, Indiana 46320  
FESOP No.: **F089-5435-00295**

A separate copy of this report must be submitted for **each** material type, quantity usage and operation limitation (except control equipment monitoring) listed in this permit. Attach a signed certification to complete this report.

Stack/Vent ID:  
Equipment/Operation:  
Parameter Subject to Material Type, Quantity Usage or Operation Limitations Specified in the Permit:  
(ex: 2500 lb/day, 300 hours/yr, 5000 gallons/month)

Determination Period for this Parameter:  
(ex: 365-day rolling sum, fixed monthly rate)

☐ Permit Has No Rate Limitations for this Parameter.  
Content Restriction for this Parameter:  
(ex: maximum of 40% VOC in inks, 0.5% sulfur content)

Demonstration Method for this Parameter:  
(ex: MSDS, Supplier, material sampling & analysis)

☐ Permit Has No Content Limitations for this Parameter.  
Comments:

1/18/96

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 - AIR POLLUTION CONTROL DIVISION -  
 AND  
 INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR MANAGEMENT  
 COMPLIANCE DATA SECTION

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
 PM & PM10 Compliance Monitoring Form**

Source Name: **Davies Imperial Coatings, Inc.**  
 Source Address: 1275 State Street, Hammond, Indiana 46320  
 FESOP No.: **F089-5435-00295**  
 Limit: **47.304 Tons per year, 12 month rolling total**

**Reporting Month:** \_\_\_\_\_ **Year:** \_\_\_\_\_

Current Month Emissions			
Parameter	(Tons)	PM emissions (Tons)	PM10 emissions (Tons)
Total pigments used in the Paint Manufacturing Operation			
Total pigments handled in the Water-Based Traffic Paint Manufacturing Operation			
Total raw material bag dumped in the Paper Coating Manufacturing Operation			
<b>Total for the Month</b>			
Previous 11 Months Emissions			
Month 11	N/A		
Month 10	N/A		
Month 9	N/A		
Month 8	N/A		
Month 7	N/A		
Month 6	N/A		
Month 5	N/A		
Month 4	N/A		
Month 3	N/A		
Month 2	N/A		
Month 1	N/A		
Total Previous 12 Months			
Total for the Previous 12 Months (Add Current plus 11 previous months)			

**Equations:** *(Paint Manufacturing Operation)*  
 PM emissions (Tons) = Throughput (tons) x 20 lbs/ton ÷ 2000  
 PM10 emissions (Tons) = Throughput (tons) x 17 lbs/ton ÷ 2000  
*(Water-Based Traffic Paint Manufacturing Operation)*  
 PM emissions (Tons) = Throughput (tons) x 20 lbs/ton ÷ 2000 x (1-0.999)  
 PM10 emissions (Tons) = Throughput (tons) x 17 lbs/ton ÷ 2000 x (1-0.999)  
*(Paper Coating Manufacturing Operation)*  
 PM emissions (Tons) = Throughput (tons) x 0.24 lbs/ton ÷ 2000 x (1-0.999)  
 PM10 emissions (Tons) = Throughput (tons) x 0.12 lbs/ton ÷ 2000 x (1-0.999)

☐ No deviations occurred this month

☐ Deviation(s) occurred this month.

Deviation(s) has been reported on: \_\_\_\_\_

☐ Attached are supporting documentation

Submitted by (Name & Title): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 - AIR POLLUTION CONTROL DIVISION -  
 AND  
 INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR MANAGEMENT  
 COMPLIANCE DATA SECTION

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
 VOC Compliance Monitoring Form**

Source Name: **Davies Imperial Coatings, Inc.**  
 Source Address: 1275 State Street, Hammond, Indiana 46320  
 FESOP No.: **F089-5435-00295**  
 Limit: **24 Tons per year, 12 month rolling total**

**Reporting Month:** \_\_\_\_\_ **Year:** \_\_\_\_\_

Current Month Emissions		
Parameter	(Tons)	VOC emissions (Tons)
Total quantity of Solvent-Based Paint Produced		
Total quantity of Water-Based Paint Produced		
Total quantity of Latex Traffic Paint Produced		
<b>Total for the Month</b>		
Previous 11 Months Emissions		
Month 11	N/A	
Month 10	N/A	
Month 9	N/A	
Month 8	N/A	
Month 7	N/A	
Month 6	N/A	
Month 5	N/A	
Month 4	N/A	
Month 3	N/A	
Month 2	N/A	
Month 1	N/A	
Total Previous 12 Months		
Total for the Previous 12 Months (Add Current plus 11 previous months)		

Equations: *(Solvent-Based Paints)*

$$\text{VOC emissions (Tons)} = \text{Throughput (tons)} \times 24 \text{ lbs/ton} \div 2000$$

*(Water-Based Paints)*

$$\text{VOC emissions (Tons)} = \text{Throughput (tons)} \times 3.6 \text{ lbs/ton} \div 2000$$

*(Latex Traffic Paint)*

$$\text{VOC emissions (Tons)} = \text{Throughput (tons)} \times 2.88 \text{ lbs/ton} \div 2000$$

**Miscellaneous Information:**

**Total Natural Gas usage:** \_\_\_\_\_ **cuft**

\_\_\_ No deviations occurred this month

\_\_\_ Deviation(s) occurred this month.

Deviation(s) has been reported on: \_\_\_\_\_

\_\_\_ Attached are supporting documentation

**Submitted by (Name & Title):** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 - AIR POLLUTION CONTROL DIVISION -  
 AND  
 INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR MANAGEMENT  
 COMPLIANCE DATA SECTION

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
 HAPs Compliance Monitoring Form**

Source Name: **Davies Imperial Coatings, Inc.**  
 Source Address: 1275 State Street, Hammond, Indiana 46320  
 FESOP No.: **F089-5435-00295**  
 Limit: **9 tons per year single HAP; 24 tons per year combined HAPs; 12 month rolling total**

**Reporting Month:** \_\_\_\_\_ **Year:** \_\_\_\_\_

Current Month Emissions			
Parameter	(Tons)	HAP Emissions (Tons)	
<i>Paint Manufacturing</i>		Lead Emissions (Tons)	Chrome Emissions (Tons)
Total quantity of Chrome Yellow Pigment Used			
<i>Storage Tanks</i>		HAP Emissions (Tons)	
Throughput for tanks 10 & 11			
Throughput for tanks 12 - 14			
Throughput for UST, Compartment 1			
Throughput for UST, Compartment 2			
Throughput for UST, Compartment 3			
Throughput for UST, Compartment 4			
Throughput for UST, Compartment 5			
Throughput for UST, Compartment 6			
Throughput for UST, Compartment 7			
Throughput for UST, Compartment 8			
<b>Total for the Month</b>			
Previous 11 Months Emissions			
Month 11	N/A		
Month 10	N/A		
Month 9	N/A		
Month 8	N/A		
Month 7	N/A		
Month 6	N/A		
Month 5	N/A		
Month 4	N/A		
Month 3	N/A		

Month 2	N/A		
Month 1	N/A		
Total Previous 12 Months			
Total for the Previous 12 Months (Add Current plus 11 previous months)			

Equations: *(Chrome Yellow)*

Lead emissions (Tons) = Throughput (tons) x 20 lbs/ton x 0.6 ÷ 2000

Chrome emission (Tons) = Throughput (tons) x 20 lbs/ton x 0.14 ÷ 2000

*(Storage Tanks)*

HAP emissions (Tons) = Throughput (tons) x 40 lbs/ton ÷ 2000

☐ No deviation occurred this month

☐ Deviation(s) occurred this month.

Deviation(s) has been reported on: \_\_\_\_\_

☐ Attached are supporting documentation

Submitted by (Name & Title): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 - AIR POLLUTION CONTROL DIVISION -

AND

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR MANAGEMENT  
 COMPLIANCE DATA SECTION

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)**  
**Pressure Drop Monitoring Form**

Source Name: **Davies Imperial Coatings, Inc.**  
 Source Address: 1275 State Street, Hammond, Indiana 46320  
 FESOP No.: **F089-5435-00295**

Month: \_\_\_\_\_ Year: \_\_\_\_\_

	<i>Paper Coating Manufacturing Operation</i>					<i>Latex Traffic Paint</i>
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 1
	$\Delta P$ Reading (inches of water)					
Day 1						
Day 2						
Day 3						
Day 4						
Day 5						
Day 6						
Day 7						
Day 8						
Day 9						
Day 10						
Day 11						
Day 12						
Day 13						
Day 14						
Day 15						
Day 16						
Day 17						
Day 18						
Day 19						
Day 20						
Day 21						
Day 22						
Day 22						
Day 23						
Day 24						
Day 25						
Day 26						
Day 27						
Day 28						
Day 29						
Day 30						
Day 31						



☐ No deviations occurred this month

☐ Deviation(s) occurred this month.

Deviation(s) has been reported on: \_\_\_\_\_

☐ Attached are supporting documentation

Submitted by (Name & Title): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

HAMMOND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
- AIR POLLUTION CONTROL DIVISION -  
AND  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT, COMPLIANCE DATA SECTION

**FESOP-Visual Stack Notations Form**

Source Name: **Davies Imperial Coatings, Inc.**  
Source Address: 1275 State Street, Hammond, Indiana 46320  
FESOP No.: **F089-5435-00295**

Month: \_\_\_\_\_ Year: \_\_\_\_\_

	<i>Paper Coating Manufacturing Operation</i>					<i>Latex Traffic Paint</i>
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 1
	<b>Stack Notation (Normal or Above Normal)</b>					
Day 1						
Day 2						
Day 3						
Day 4						
Day 5						
Day 6						
Day 7						
Day 8						
Day 9						
Day 10						
Day 11						
Day 12						
Day 13						
Day 14						
Day 15						
Day 16						
Day 17						
Day 18						
Day 19						
Day 20						
Day 21						
Day 22						
Day 22						
Day 23						
Day 24						
Day 25						
Day 26						
Day 27						
Day 28						
Day 29						
Day 30						
Day 31						

EVALUATION OF MATERIAL THROUGHPUT  
Paper Coating Manufacturing Operation

<b>PURPOSE:</b>	To justify approval of an Administrative Amendment to the FESOP with the proposed installation of additional equipment that would result in an increase in material throughput for the Paper Coating Manufacturing Operation (EU-3). <b>Addition of these equipment will not result in an increase in the Potential to Emit for this process as there is no increase in the MDR.</b>
-----------------	---

<b>PROCESS INFORMATION:</b>	Maximum Design Rate, MDR, tph:	2.5
	Maximum Achievable Throughput at the above MDR, tpy:	21,900
	Emission Factor for Particulate Matter, PT, lb/ton:	0.24
	Emission Factor for Particulate Matter <10µ, PM <sub>10</sub> , lb/ton:	0.12
	Control Efficiency, CE, %:	99.9
	Potential to Emit, PTE, PT, tpy:	2.628
	Potential to Emit, PTE, PM <sub>10</sub> , tpy:	1.314

**THROUGHPUT ANALYSIS:**

Throughput for 1999, tpy (see "1999 Throughput") :	2,995.28
1999 Throughput as a percentage of Maximum Achievable Throughput, % of maximum:	14
Actual Emissions, PT, tpy:	0.00036
Actual Emissions, PM <sub>10</sub> , tpy:	0.00018
Projected throughput for 2000 (with proposed 30% increase), tpy:	3893.86
2000 Throughput as a percentage of Maximum Achievable Throughput, % of maximum:	18
Actual Emissions with throughput increase, PT, tpy:	0.00047
Actual Emissions with throughput increase, PM <sub>10</sub> , tpy:	0.00023
Increase in Potential to Emit, PTE, PT, tpy:	0.00
Increase in Potential to Emit, PTE, PM <sub>10</sub> , tpy:	0.00
Increase in Actual Emissions, PT, tpy:	0.000108
Increase in Actual Emissions, PM <sub>10</sub> , tpy:	0.000054

1999 Throughput (from Company submitted data)

Month	tons/mo
1	258.013
2	222.378
3	247.658
4	245.034
5	210.695
6	223.325
7	234.366
8	279.65
9	269.053
10	257.765
11	275.124
12	272.217
<b>Totals, tpy</b>	<b>2995.28</b>

<b>CONCLUSION:</b>	As can be seen from the above analysis of the 1999 information, the Company is well within the maximum achievable throughput. The proposed increase in throughput resulting in the installation of additional equipment for this operation will not greatly impact or necessitate a permit revision. This installation, therefore, warrants only an Administrative Amendment to the FESOP.
--------------------	--

**ADDITIONAL INFORMATION:**

Process Name	Process ID	MDR, tph	PTE @ 8760 hrs/yr		Comments
			PT, tpy	PM <sub>10</sub> , tpy	
Paint Mfg Oper	EU1	0.75	65.7	55.845	limited to 2250 hrs/yr to meet FESOP limitations
WB Traffic Paint Mfg Oper	EU2	1	87.6	74.46	no limit on hours of operation
Paper Coating Mfg Oper	EU3	2.5	2.628	1.314	no limit on hours of operation
Combustion Units		0.0038	0.2121	0.202	no limit on hours of operation
<b>Totals</b>		<b>4.2538</b>	<b>156.1401</b>	<b>131.821</b>	
<b>Overall Source Limit, TPY (calculated using 326 IAC 6-3-2 using total MDR of 4.25 TPH.)</b>					
		<b>PT, tpy:</b>	<b>47.304</b>		
		<b>PM<sub>10</sub>, tpy:</b>	<b>47.304</b>		

Appendix A: Source Emissions Calculations

Plant ID: 00295

Company Name: Davies Imperial Coatings, Inc.

Address: 1275 State Street, Hammond, Indiana 46320

Calculations By: Lito Biscocho, 2/4/00

NO. OF POINTS: 3  
NO. OF SEGMENTS: 8

**\*\*NOTES\*\***

EF: EMISSION FACTOR

MDR: MAXIMUM DESIGN RATE

Ts: STACK DISCHARGE TEMPERATURE

CE: CONTROL EFFICIENCY

MDC: MAXIMUM DESIGN CAPACITY

UNITS FOR EMISSIONS ARE IN (TPY) EXCEPT WHERE GIVEN

\*\*\*\*\*  
EU-01: Paint Manufacturing Operation  
\*\*\*\*\*

This operation includes the production of solvent-based and water-based industrial paints, and solvent-based and water-based traffic paints.

Includes: *(Used for solvent-based & water-based traffic paint)*

(4) 600 gal tanks: IDs 6, 7, 8, & 9

(2) 1700 gal tanks: IDs 10 & 11

(1) 2,000 gal tank: ID 12

(1) 1,400 gal tank: ID 13

(1) 2,700 gal tank: ID 14

(1) 300 gal Mixer: ID 15

*(Used for solvent-based & water-based industrial paints)*

(1) 140 gal mixer: ID G5

(1) 210 gal mixer: ID G2

(1) 330 gal mixer: ID G3

(2) 540 gal mix tanks with one common mixing arm: ID G7a & G7b

Hammond Department of Environmental Management  
-Air Pollution Control Division-

Appendix A: Source Emissions Calculations

(Pigments Handling) MDR (chrome yellow) (T/hr): 0.048

MDR (T/hr): 0.75

STACK ID (DIAM:HEIGHT): (No Stack)

YEARLY PROD (T/yr):

YEARLY PROD (T/yr):

FLOWRATE (ACFM): N/A

CNTRL DEV: Low dust chrome yellow pigment

Ts(°F): N/A

SCC # 3-01-014-02			PERMITTED OPERATING HRS: 2250		hr/yr		POTENTIAL TO EMIT (PTE)		
			BEFORE CONTROLS				AFTER CONTROLS		
			(lbs/hr)	(lbs/day)	(TPY)		(lbs/hr)	(TPY)	(gr/dscf)
POLLUTANT	EF(LB/T)	CE (%)							
PM	20	0	15.0000	360.0000	16.8750		15.0000	16.8750	#VALUE!
PM10	17	0	12.7500	306.0000	14.3438		12.7500	14.3438	#VALUE!
SOx	0	0	0.0000	0.0000	0.0000		0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000		0.0000	0.0000	N/A
VOC	0	0	0.0000	0.0000	0.0000		0.0000	0.0000	N/A
CO	0	0	0.0000	0.0000	0.0000		0.0000	0.0000	N/A
HAPs	20	0.75	0.9600	23.0400	1.0800		0.2400	0.2700	N/A

\*6.4% of total pigment is Chrome Yellow Y-969-LD; 60 wt% of Chrome Yellow is lead; 14 wt % is chromium; 75% dust reduction (LD) due to electrostatic charge (see review).

\*EF is, therefore,  $20 \times 0.064 \times 0.6 = 0.768$  - Chrome Yellow added every third day for 5-10 minutes

\*EF is per ton of pigment added; Total pigment (Yearly Prod) from Quarterly reports.

Recordkeeping: Monthly pigment usage & lead-chromate pigment usage.

Reporting: Quarterly report.

Hammond Department of Environmental Management  
-Air Pollution Control Division-

Appendix A: Source Emissions Calculations

(Solvent-based Paints)

MDR (T produced/hr): 1

STACK ID (DIAM:HEIGHT): (No Stack)

YEARLY PROD (T/yr):

FLOWRATE (ACFM): N/A

CNTRL DEV: None

Ts(°F): N/A

(AP-42, Section 6.4, Table 6.4-1)			PERMITTED OPERATING HRS: 2250 hr/yr		POTENTIAL TO EMIT (PTE)			
SCC # 3-01-014-01			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	24	0	24.0000	576.0000	27.0000	24.0000	27.0000	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

EF for conventional paints is 30 lbs VOC per ton of paint produced. This is based on a solvent by weight content of 50%.

The average solvent by weight content of Davies' solvent-based paint is 40%.

Thus, EF for solvent-based paints for Davies is, therefore, 30x(40/50).

Recordkeeping: Monthly production of each type of product.

Reporting: Quarterly report.

(Water-Based Paints)

MDR (T produced/hr): 1

STACK ID (DIAM:HEIGHT): (No Stack)

YEARLY PROD (T/yr):

FLOWRATE (ACFM): N/A

CNTRL DEV: None

Ts(°F): N/A

(AP-42, Section 6.4, Table 6.4-1)			PERMITTED OPERATING HRS: 2250 hr/yr		POTENTIAL TO EMIT (PTE)			
SCC # 3-01-014-01			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	3.6	0	3.6000	86.4000	4.0500	3.6000	4.0500	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

EF for conventional paints is 30 lbs VOC per ton of paint produced. This is based on a solvent by weight content of 50%.

The average solvent by weight content of Davies' water-based paint is 6%.

Thus, EF for water-based paints for Davies is, therefore, 30x(6/50).

Recordkeeping: Monthly production of each type of product.

Reporting: Quarterly report.

Hammond Department of Environmental Management  
-Air Pollution Control Division-

Appendix A: Source Emissions Calculations

Total: Paint Manufacturing Operation (Solvent & Water-Based)						
POTENTIAL TO EMIT (PTE)						
POLLUTANT	BEFORE CONTROLS			AFTER CONTROLS		
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	15.0000	360.0000	16.8750	15.0000	16.8750	#VALUE!
PM10	12.7500	306.0000	14.3438	12.7500	14.3438	#VALUE!
SOx	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
NOx	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
VOC	27.6000	662.4000	31.0500	27.6000	31.0500	#VALUE!
CO	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
HAPs	0.9600	23.0400	1.0800	0.2400	0.2700	#VALUE!

EU-02: Water-Based Traffic Paint Manufacturing

Includes: (1) 2000 gal mixer: ID 16  
(2) 7000 gal tanks: ID 1, & 2  
(2) 2000 gal tanks: ID 3 & 4  
(1) bulk handling system for CaCO<sub>3</sub>  
(1) Bag Dump station for TiO<sub>2</sub> & CaCO<sub>3</sub>. (Stack ID X)

(Pigments Handling)

MDR (T produced/hr): 1  
YEARLY PROD (T/yr):

STACK ID (DIAM:HEIGHT):  
FLOWRATE (ACFM):  
Ts(°F):

CNTRL DEV: None

PERMITTED OPERATING HRS: 8760 hr/yr

SCC # 3-01-014-02								
POTENTIAL TO EMIT (PTE)								
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS		
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	20	0.999	20.0000	480.0000	87.6000	0.0200	0.0876	#DIV/O!
PM10	17	0.999	17.0000	408.0000	74.4600	0.0170	0.0745	#DIV/O!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

Recordkeeping: Monthly pigment usage.  
Reporting: Quarterly report.

Hammond Department of Environmental Management  
-Air Pollution Control Division-

Appendix A: Source Emissions Calculations

(Water-Based Traffic Paint)

MDR (T produced/hr): 3.5

STACK ID (DIAM:HEIGHT): (No Stack)

YEARLY PROD (T/yr):

FLOWRATE (ACFM): N/A

CNTRL DEV: None

Ts(°F): N/A

(AP-42, Section 6.4, Table 6.4-1)			PERMITTED OPERATING HRS: 8760 hr/yr					
			POTENTIAL TO EMIT (PTE)					
SCC # 3-01-014-01			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	2.88	0	10.0800	241.9200	44.1504	10.0800	44.1504	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

EF for conventional paints is 30 lbs VOC per ton of paint produced. This is based on a solvent by weight content of 50%.

The average solvent by weight content of Davies' water-based traffic paint is 4.8%.

Thus, EF for water-based traffic paints for Davies is, therefore, 30x(4.8/50).

Recordkeeping: Monthly production of product.

Reporting: Quarterly report.

Total: Water-Based Traffic Paint Manufacturing Operation						
POTENTIAL TO EMIT (PTE)						
BEFORE CONTROLS			AFTER CONTROLS			
POLLUTANT	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	20.0000	480.0000	87.6000	0.0200	0.0876	#DIV/O!
PM10	17.0000	408.0000	74.4600	0.0170	0.0745	#DIV/O!
SOx	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
NOx	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
VOC	10.0800	241.9200	44.1504	10.0800	44.1504	#VALUE!
CO	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
HAPs	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!



Hammond Department of Environmental Management  
-Air Pollution Control Division-

Appendix A: Source Emissions Calculations

EU-03: Paper Coating Manufacturing

2/4/00: AAF089-11842-00295 - Changes:

1. Addition of Mixer #5
2. Addition of a 2500-gallon tank for the Rigid Disk Manufacturing Operation
3. Update tank numbers for consistency with Company designations.

These changes did not affect the Potential to Emit for this process. See attached Emissions Increase/Decrease calculations.

- Includes:
- (5) 660-gal mixers: ID M1, M2, M3, M4, M5
  - (7) 2700-gal finished product storage tanks: ID 2E, 4E, 5E, 6E, 7E, 2W, & 3W
  - (3) 1500-gal finished product holding tanks: ID 1E, 3E, & 1W
  - (1) 2500-gal blend tank for Rigid Disk Manufacturing Operation: 4W RD
  - (5) Bag Dump stations w/ bag filters for amorphous silicon dioxide, fumed silica & fumed alumina: ID D1, D2, D3, D4, & D5

MDR (T produced/hr): 2.5

STACK ID (DIAM:HEIGHT):

YEARLY PROD (T/yr):

FLOWRATE (ACFM):

Ts(°F):

CNTRL DEV: Self Contained Bag Filter

SCC # 3-01-014-01			PERMITTED OPERATING HRS: 8760 hr/yr					
			POTENTIAL TO EMIT (PTE)					
			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0.24	0.999	0.6000	14.4000	2.6280	0.0006	0.0026	#DIV/O!
PM10	0.12	0.999	0.3000	7.2000	1.3140	0.0003	0.0013	#DIV/O!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

MDR is the raw material bag dumped per hour.

Recordkeeping: Monthly raw material usage.

Reporting: Quarterly report.

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Appendix A: Source Emissions Calculations

HAPs Emissions

HAPs emissions estimate based on 2% loss of throughput through above ground storage tanks 6-9 and the underground storage tank.  
These all contain the 100% HAPs solvents used in the manufacturing operations.

Tanks 10 & 11 contain 5482 Resin; annual through is 52,851 gal total. (1.03 sp. gr; 9.004 lbs/gal; 475,868.29 lbs)	(HAPs emissions)	4.759 Tons
Tanks 12-14 contain 5465 Resin; annual throughput is 66,031 gal total. (0.924 sp. gr; 7.703 lbs/gal; 508,636.793 lbs).		5.086
Underground Storage Tank, Compartment 1 contains Toluene; annual throughput is 49,609 gal (0.870 sp. gr; 7.253 lbs/gal; 359,823.503 lbs)		3.598
Underground Storage Tank, Compartment 2 contains Xylene; annual throughput is 14,496 gal. (0.872 sp. gr; 7.270 lbs/gal; 105,383.949 lbs)		1.054
Underground Storage Tank, Compartment 3 contains MEK; annual throughput is 26,681 gal. (0.807 sp. gr; 6.728 lbs/gal; 179,508.674 lbs)		1.795
Underground Storage Tank, Compartment 4 contains VM & P Naphtha; annual throughput is 7,595 gal. (0.750 sp. gr; 6.253 lbs/gal; 47,489.636 lbs)		0.475
Underground Storage Tank, Compartment 5 contains Butyl Carbitol; annual throughput is 7,000 gal (0.904 sp. gr; 7.537 lbs/gal; 52,756.536 lbs)		0.528
Underground Storage Tank, Compartment 6 contains Butyl Cellosolve; annual throughput is 7,652 gal. (0.810 sp. gr; 6.753 lbs/gal; 51,673.726 lbs)		0.517
Underground Storage Tank, Compartment 7 contains Mineral Spirits; annual throughput is 10,220 gal. (0.806 sp. gr; 6.720 lbs/gal; 68,674.539 lbs)		0.687
Underground Storage Tank, Compartment 8 contains Lactol; annual throughput is 36,540 gal. (0.735 sp. gr.; 6.128 lbs/gal; 223,905.975 lbs)		2.239
<b>Total Throughput = 2,073,721.621 lbs = 1036.861 Tons</b>	<b>Total:</b>	<b>20.737 Tons</b>

MDR (Ton/hr): 0.11836313      STACK ID (DIAM:HEIGHT): (No stack)  
YEARLY PROD (T/yr): 1,036.86      **\*1995 data**      FLOWRATE (ACFM):  
CNTRL DEV: None      Ts(°F):

			PERMITTED OPERATING HRS: 8760 hr/yr			POTENTIAL TO EMIT (PTE)		
			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/Ton)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#DIV/O!
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#DIV/O!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	40	0	4.7345	113.6286	20.7372	4.7345	20.7372	N/A

(See above for individual HAPs emissions)

1995 ACTUAL	
BEFORE CONTROLS	AFTER CONTROLS
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
20.7372	20.7372

Hammond Department of Environmental Management  
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Appendix A: Source Emissions Calculations

Combustion Units

Unit ID: Combustion Units  
(Natural Gas Combustion)

MDC (mmBtu/hr): 4.036  
MDR (mmcft/hr): 0.0038

HEAT CONTENT (Btu/cft): 1,050  
QTY BURNED (mmcft/yr):

STACK ID (DIAM:HEIGHT): (Various)  
FLOWRATE (ACFM):  
Ts(°F):

CNTRL DEV:

(AP-42, Table 1.4-1, 2, & 3)			PERMITTED OPERATING HRS: 8760 hr/yr					
			POTENTIAL TO EMIT (PTE)					
SCC NO. 1-02-006-03			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF (lbs/MMcft)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	12.6	0	0.0484	1.1624	0.2121	0.0484	0.2121	#DIV/O!
PM10	12	0	0.0461	1.1070	0.2020	0.0461	0.2020	#DIV/O!
SOx	0.63	0	0.0024	0.0581	0.0106	0.0024	0.0106	N/A
NOx	105	0	0.4036	9.6864	1.7678	0.4036	1.7678	N/A
VOC	6.09	0	0.0234	0.5618	0.1025	0.0234	0.1025	N/A
CO	22.05	0	0.0848	2.0341	0.3712	0.0848	0.3712	N/A
HAPs	---	0	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	N/A

(25) units -

Hot Water Heater No. 1 - 0.040 MMBtu/hr  
Furnaces No. 1-8 - 0.225, 0.225, 0.160, 0.160, 0.400, 0.160, 0.320, & 0.200 MMBtu/hr respectively  
three (3) Sterling OVF175 Unit Heaters - 0.175 MMBtu/hr each  
One (1) Armstrong Furnace and Air Conditioning Unit - 0.075 MMBtu/hr  
One (1) Make-Up Air Unit, Model RPB - 0.2 MMBtu/hr  
(2) Furnaces: 0.1 & 0.15 MMBtu/hr  
(2) Furnaces: 0.125 & 0.15 MMBtu/hr for the chiller room  
(1) heater: 0.1 MMBtu/hr - label room of the Latex Road Marking Paint Mfg. Op  
(1) heater: 0.125 MMBtu/hr - latex room  
(4) furnaces: (1) 0.125 MMBtu/hr & (3) 0.145 MMBtu/hr - New Warehouse  
(1) Hot water heater: 0.036 MMBtu/hr - New Locker Room

Hammond Department of Environmental Management  
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Appendix A: Source Emissions Calculations

\*\* SOURCE TOTALS: DAVIES IMPERIAL COATINGS, INC. \*\*

POLLUTANT	POTENTIAL TO EMIT (PTE)						PERMIT LIMIT		ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	35.6484	855.5624	107.3151	15.0690	17.1774	#VALUE!	10.800	47.304	0.0000	0.0000
PM10	30.0961	722.3070	90.3198	12.8134	14.6216	#VALUE!	10.800	47.304	0.0000	0.0000
SOx	0.0024	0.0581	0.0106	0.0024	0.0106	#VALUE!	N/A	N/A	0.0000	0.0000
NOx	0.4036	9.6864	1.7678	0.4036	1.7678	#VALUE!	N/A	N/A	0.0000	0.0000
VOC	37.7034	904.8818	75.3029	37.7034	75.3029	#VALUE!	5.479	24.000	0.0000	0.0000
CO	0.0848	2.0341	0.3712	0.0848	0.3712	#VALUE!	N/A	N/A	0.0000	0.0000
HAPs	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	5.479	24.000	20.7372	20.7372

PM: 326 IAC 6-3-2 for MDR of 4.25 Tons per hour.

PM10: set equal to PM as per HAQC Ordinance No. 3522 (as amended)

Individual HAPs limit = 9 TPY

VOC emissions from storage tanks included in the process emissions for general handling.

Appendix A: Source Emissions Calculations

Plant ID: 00295

Company Name: Davies Imperial Coatings, Inc.

Address: 1275 State Street, Hammond, Indiana 46320

Calculations By: Lito Biscocho, 2/4/00

NO. OF POINTS: 3  
NO. OF SEGMENTS: 8

**\*\*NOTES\*\***

EF: EMISSION FACTOR

MDR: MAXIMUM DESIGN RATE

Ts: STACK DISCHARGE TEMPERATURE

CE: CONTROL EFFICIENCY

MDC: MAXIMUM DESIGN CAPACITY

UNITS FOR EMISSIONS ARE IN (TPY) EXCEPT WHERE GIVEN

\*\*\*\*\*  
EU-01: Paint Manufacturing Operation  
\*\*\*\*\*

This operation includes the production of solvent-based and water-based industrial paints, and solvent-based and water-based traffic paints.

Includes: *(Used for solvent-based & water-based traffic paint)*

(4) 600 gal tanks: IDs 6, 7, 8, & 9

(2) 1700 gal tanks: IDs 10 & 11

(1) 2,000 gal tank: ID 12

(1) 1,400 gal tank: ID 13

(1) 2,700 gal tank: ID 14

(1) 300 gal Mixer: ID 15

*(Used for solvent-based & water-based industrial paints)*

(1) 140 gal mixer: ID G5

(1) 210 gal mixer: ID G2

(1) 330 gal mixer: ID G3

(2) 540 gal mix tanks with one common mixing arm: ID G7a & G7b

Hammond Department of Environmental Management  
-Air Pollution Control Division-

Appendix A: Source Emissions Calculations

(Pigments Handling) MDR (chrome yellow) (T/hr): 0.048

MDR (T/hr): 0.75

STACK ID (DIAM:HEIGHT): (No Stack)

YEARLY PROD (T/yr):

YEARLY PROD (T/yr):

FLOWRATE (ACFM): N/A

CNTRL DEV: Low dust chrome yellow pigment

Ts(°F): N/A

SCC # 3-01-014-02			PERMITTED OPERATING HRS: 2250 hr/yr					
			POTENTIAL TO EMIT (PTE)					
			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	20	0	15.0000	360.0000	16.8750	15.0000	16.8750	#VALUE!
PM10	17	0	12.7500	306.0000	14.3438	12.7500	14.3438	#VALUE!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	20	0.75	0.9600	23.0400	1.0800	0.2400	0.2700	N/A

\*6.4% of total pigment is Chrome Yellow Y-969-LD; 60 wt% of Chrome Yellow is lead; 14 wt % is chromium; 75% dust reduction (LD) due to electrostatic charge (see review).

\*EF is, therefore,  $20 \times 0.064 \times 0.6 = 0.768$  - Chrome Yellow added every third day for 5-10 minutes

\*EF is per ton of pigment added; Total pigment (Yearly Prod) from Quarterly reports.

Recordkeeping: Monthly pigment usage & lead-chromate pigment usage.

Reporting: Quarterly report.

Hammond Department of Environmental Management  
-Air Pollution Control Division-

Appendix A: Source Emissions Calculations

(Solvent-based Paints)

MDR (T produced/hr): 1

STACK ID (DIAM:HEIGHT): (No Stack)

YEARLY PROD (T/yr):

FLOWRATE (ACFM): N/A

CNTRL DEV: None

Ts(°F): N/A

(AP-42, Section 6.4, Table 6.4-1)			PERMITTED OPERATING HRS: 2250 hr/yr		POTENTIAL TO EMIT (PTE)			
SCC # 3-01-014-01			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	24	0	24.0000	576.0000	27.0000	24.0000	27.0000	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

EF for conventional paints is 30 lbs VOC per ton of paint produced. This is based on a solvent by weight content of 50%.

The average solvent by weight content of Davies' solvent-based paint is 40%.

Thus, EF for solvent-based paints for Davies is, therefore, 30x(40/50).

Recordkeeping: Monthly production of each type of product.

Reporting: Quarterly report.

(Water-Based Paints)

MDR (T produced/hr): 1

STACK ID (DIAM:HEIGHT): (No Stack)

YEARLY PROD (T/yr):

FLOWRATE (ACFM): N/A

CNTRL DEV: None

Ts(°F): N/A

(AP-42, Section 6.4, Table 6.4-1)			PERMITTED OPERATING HRS: 2250 hr/yr		POTENTIAL TO EMIT (PTE)			
SCC # 3-01-014-01			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	3.6	0	3.6000	86.4000	4.0500	3.6000	4.0500	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

EF for conventional paints is 30 lbs VOC per ton of paint produced. This is based on a solvent by weight content of 50%.

The average solvent by weight content of Davies' water-based paint is 6%.

Thus, EF for water-based paints for Davies is, therefore, 30x(6/50).

Recordkeeping: Monthly production of each type of product.

Reporting: Quarterly report.

Hammond Department of Environmental Management  
-Air Pollution Control Division-

Appendix A: Source Emissions Calculations

Total: Paint Manufacturing Operation (Solvent & Water-Based)						
POTENTIAL TO EMIT (PTE)						
POLLUTANT	BEFORE CONTROLS			AFTER CONTROLS		
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	15.0000	360.0000	16.8750	15.0000	16.8750	#VALUE!
PM10	12.7500	306.0000	14.3438	12.7500	14.3438	#VALUE!
SOx	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
NOx	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
VOC	27.6000	662.4000	31.0500	27.6000	31.0500	#VALUE!
CO	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
HAPs	0.9600	23.0400	1.0800	0.2400	0.2700	#VALUE!

EU-02: Water-Based Traffic Paint Manufacturing

Includes: (1) 2000 gal mixer: ID 16  
(2) 7000 gal tanks: ID 1, & 2  
(2) 2000 gal tanks: ID 3 & 4  
(1) bulk handling system for CaCO<sub>3</sub>  
(1) Bag Dump station for TiO<sub>2</sub> & CaCO<sub>3</sub>. (Stack ID X)

(Pigments Handling)

MDR (T produced/hr): 1  
YEARLY PROD (T/yr):

STACK ID (DIAM:HEIGHT):  
FLOWRATE (ACFM):  
Ts(°F):

CNTRL DEV: None

PERMITTED OPERATING HRS: 8760 hr/yr

SCC # 3-01-014-02								
POTENTIAL TO EMIT (PTE)								
POLLUTANT	EF(LB/T)	CE (%)	BEFORE CONTROLS			AFTER CONTROLS		
			(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	20	0.999	20.0000	480.0000	87.6000	0.0200	0.0876	#DIV/O!
PM10	17	0.999	17.0000	408.0000	74.4600	0.0170	0.0745	#DIV/O!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

Recordkeeping: Monthly pigment usage.  
Reporting: Quarterly report.



Hammond Department of Environmental Management  
-Air Pollution Control Division-

Appendix A: Source Emissions Calculations

(Water-Based Traffic Paint)

MDR (T produced/hr): 3.5

STACK ID (DIAM:HEIGHT): (No Stack)

YEARLY PROD (T/yr):

FLOWRATE (ACFM): N/A

CNTRL DEV: None

Ts(°F): N/A

(AP-42, Section 6.4, Table 6.4-1)			PERMITTED OPERATING HRS: 8760 hr/yr					
			POTENTIAL TO EMIT (PTE)					
SCC # 3-01-014-01			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	2.88	0	10.0800	241.9200	44.1504	10.0800	44.1504	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

EF for conventional paints is 30 lbs VOC per ton of paint produced. This is based on a solvent by weight content of 50%.

The average solvent by weight content of Davies' water-based traffic paint is 4.8%.

Thus, EF for water-based traffic paints for Davies is, therefore, 30x(4.8/50).

Recordkeeping: Monthly production of product.

Reporting: Quarterly report.

Total: Water-Based Traffic Paint Manufacturing Operation						
POTENTIAL TO EMIT (PTE)						
BEFORE CONTROLS			AFTER CONTROLS			
POLLUTANT	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	20.0000	480.0000	87.6000	0.0200	0.0876	#DIV/O!
PM10	17.0000	408.0000	74.4600	0.0170	0.0745	#DIV/O!
SOx	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
NOx	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
VOC	10.0800	241.9200	44.1504	10.0800	44.1504	#VALUE!
CO	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!
HAPs	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!

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Appendix A: Source Emissions Calculations

EU-03: Paper Coating Manufacturing

2/4/00: AAF089-11842-00295 - Changes:

1. Addition of Mixer #5
2. Addition of a 2500-gallon tank for the Rigid Disk Manufacturing Operation
3. Update tank numbers for consistency with Company designations.

These changes did not affect the Potential to Emit for this process. See attached Emissions Increase/Decrease calculations.

- Includes:
- (5) 660-gal mixers: ID M1, M2, M3, M4, M5
  - (7) 2700-gal finished product storage tanks: ID 2E, 4E, 5E, 6E, 7E, 2W, & 3W
  - (3) 1500-gal finished product holding tanks: ID 1E, 3E, & 1W
  - (1) 2500-gal blend tank for Rigid Disk Manufacturing Operation: 4W RD
  - (5) Bag Dump stations w/ bag filters for amorphous silicon dioxide, fumed silica & fumed alumina: ID D1, D2, D3, D4, & D5

MDR (T produced/hr): 2.5

STACK ID (DIAM:HEIGHT):

YEARLY PROD (T/yr):

FLOWRATE (ACFM):

Ts(°F):

CNTRL DEV: Self Contained Bag Filter

SCC # 3-01-014-01			PERMITTED OPERATING HRS: 8760 hr/yr					
			POTENTIAL TO EMIT (PTE)					
			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0.24	0.999	0.6000	14.4000	2.6280	0.0006	0.0026	#DIV/O!
PM10	0.12	0.999	0.3000	7.2000	1.3140	0.0003	0.0013	#DIV/O!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A

MDR is the raw material bag dumped per hour.

Recordkeeping: Monthly raw material usage.

Reporting: Quarterly report.

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Appendix A: Source Emissions Calculations

HAPs Emissions

HAPs emissions estimate based on 2% loss of throughput through above ground storage tanks 6-9 and the underground storage tank.  
These all contain the 100% HAPs solvents used in the manufacturing operations.

	(HAPs emissions)
Tanks 10 & 11 contain 5482 Resin; annual through is 52,851 gal total. (1.03 sp. gr; 9.004 lbs/gal; 475,868.29 lbs)	4.759 Tons
Tanks 12-14 contain 5465 Resin; annual throughput is 66,031 gal total. (0.924 sp. gr; 7.703 lbs/gal; 508,636.793 lbs).	5.086
Underground Storage Tank, Compartment 1 contains Toluene; annual throughput is 49,609 gal (0.870 sp. gr; 7.253 lbs/gal; 359,823.503 lbs)	3.598
Underground Storage Tank, Compartment 2 contains Xylene; annual throughput is 14,496 gal. (0.872 sp. gr; 7.270 lbs/gal; 105,383.949 lbs)	1.054
Underground Storage Tank, Compartment 3 contains MEK; annual throughput is 26,681 gal. (0.807 sp. gr; 6.728 lbs/gal; 179,508.674 lbs)	1.795
Underground Storage Tank, Compartment 4 contains VM & P Naphtha; annual throughput is 7,595 gal. (0.750 sp. gr; 6.253 lbs/gal; 47,489.636 lbs)	0.475
Underground Storage Tank, Compartment 5 contains Butyl Carbitol; annual throughput is 7,000 gal (0.904 sp. gr; 7.537 lbs/gal; 52,756.536 lbs)	0.528
Underground Storage Tank, Compartment 6 contains Butyl Cellosolve; annual throughput is 7,652 gal. (0.810 sp. gr; 6.753 lbs/gal; 51,673.726 lbs)	0.517
Underground Storage Tank, Compartment 7 contains Mineral Spirits; annual throughput is 10,220 gal. (0.806 sp. gr; 6.720 lbs/gal; 68,674.539 lbs)	0.687
Underground Storage Tank, Compartment 8 contains Lactol; annual throughput is 36,540 gal. (0.735 sp. gr.; 6.128 lbs/gal; 223,905.975 lbs)	2.239
<b>Total Throughput = 2,073,721.621 lbs = 1036.861 Tons</b>	<b>Total: 20.737 Tons</b>

MDR (Ton/hr): 0.11836313      STACK ID (DIAM:HEIGHT): (No stack)  
YEARLY PROD (T/yr): 1,036.86      **\*1995 data**      FLOWRATE (ACFM):  
CNTRL DEV: None      Ts(°F):

			PERMITTED OPERATING HRS: 8760 hr/yr		POTENTIAL TO EMIT (PTE)			
			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(LB/Ton)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#DIV/O!
PM10	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	#DIV/O!
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A
HAPs	40	0	4.7345	113.6286	20.7372	4.7345	20.7372	N/A

(See above for individual HAPs emissions)

1995 ACTUAL	
BEFORE CONTROLS	AFTER CONTROLS
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
20.7372	20.7372

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Appendix A: Source Emissions Calculations

Combustion Units

Unit ID: Combustion Units  
(Natural Gas Combustion)

MDC (mmBtu/hr): 4.036  
MDR (mmcft/hr): 0.0038

HEAT CONTENT (Btu/cft): 1,050  
QTY BURNED (mmcft/yr):

STACK ID (DIAM:HEIGHT): (Various)  
FLOWRATE (ACFM):  
Ts(°F):

CNTRL DEV:

(AP-42, Table 1.4-1, 2, & 3)			PERMITTED OPERATING HRS: 8760 hr/yr					
			POTENTIAL TO EMIT (PTE)					
SCC NO. 1-02-006-03			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF (lbs/mmcf)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)
PM	12.6	0	0.0484	1.1624	0.2121	0.0484	0.2121	#DIV/O!
PM10	12	0	0.0461	1.1070	0.2020	0.0461	0.2020	#DIV/O!
SOx	0.63	0	0.0024	0.0581	0.0106	0.0024	0.0106	N/A
NOx	105	0	0.4036	9.6864	1.7678	0.4036	1.7678	N/A
VOC	6.09	0	0.0234	0.5618	0.1025	0.0234	0.1025	N/A
CO	22.05	0	0.0848	2.0341	0.3712	0.0848	0.3712	N/A
HAPs	---	0	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	N/A

(25) units -

Hot Water Heater No. 1 - 0.040 MMBtu/hr  
Furnaces No. 1-8 - 0.225, 0.225, 0.160, 0.160, 0.400, 0.160, 0.320, & 0.200 MMBtu/hr respectively  
three (3) Sterling OVF175 Unit Heaters - 0.175 MMBtu/hr each  
One (1) Armstrong Furnace and Air Conditioning Unit - 0.075 MMBtu/hr  
One (1) Make-Up Air Unit, Model RPB - 0.2 MMBtu/hr  
(2) Furnaces: 0.1 & 0.15 MMBtu/hr  
(2) Furnaces: 0.125 & 0.15 MMBtu/hr for the chiller room  
(1) heater: 0.1 MMBtu/hr - label room of the Latex Road Marking Paint Mfg. Op  
(1) heater: 0.125 MMBtu/hr - latex room  
(4) furnaces: (1) 0.125 MMBtu/hr & (3) 0.145 MMBtu/hr - New Warehouse  
(1) Hot water heater: 0.036 MMBtu/hr - New Locker Room

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Appendix A: Source Emissions Calculations

\*\* SOURCE TOTALS: DAVIES IMPERIAL COATINGS, INC. \*\*

POLLUTANT	POTENTIAL TO EMIT (PTE)						PERMIT LIMIT		ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	35.6484	855.5624	107.3151	15.0690	17.1774	#VALUE!	10.800	47.304	0.0000	0.0000
PM10	30.0961	722.3070	90.3198	12.8134	14.6216	#VALUE!	10.800	47.304	0.0000	0.0000
SOx	0.0024	0.0581	0.0106	0.0024	0.0106	#VALUE!	N/A	N/A	0.0000	0.0000
NOx	0.4036	9.6864	1.7678	0.4036	1.7678	#VALUE!	N/A	N/A	0.0000	0.0000
VOC	37.7034	904.8818	75.3029	37.7034	75.3029	#VALUE!	5.479	24.000	0.0000	0.0000
CO	0.0848	2.0341	0.3712	0.0848	0.3712	#VALUE!	N/A	N/A	0.0000	0.0000
HAPs	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	5.479	24.000	20.7372	20.7372

PM: 326 IAC 6-3-2 for MDR of 4.25 Tons per hour.

PM10: set equal to PM as per HAQC Ordinance No. 3522 (as amended)

Individual HAPs limit = 9 TPY

VOC emissions from storage tanks included in the process emissions for general handling.